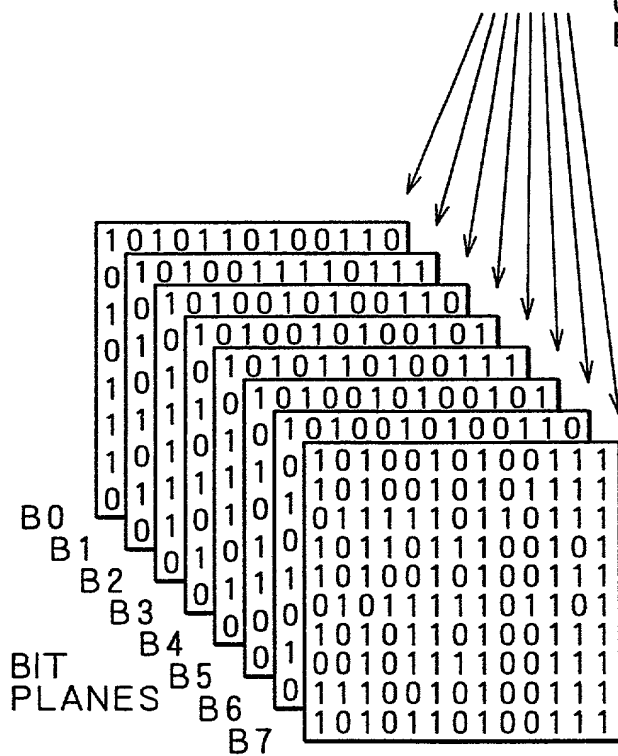


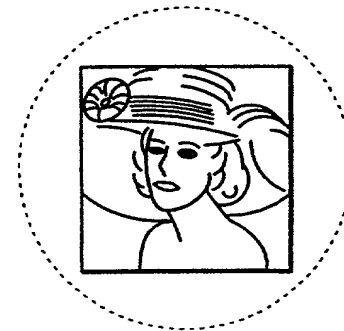
FIG. 1



ORIGINAL
IMAGE



RECOGNIZED
IMAGE



VIEWER



FIG. 2

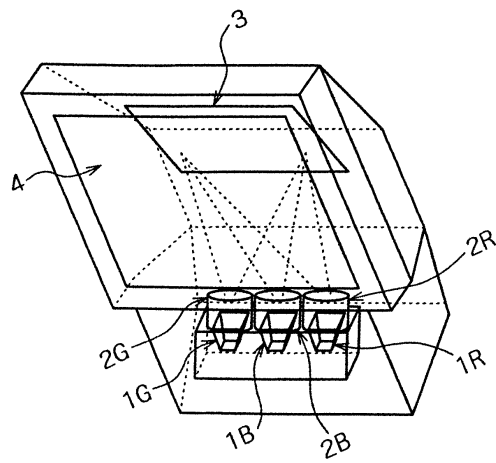


FIG. 3

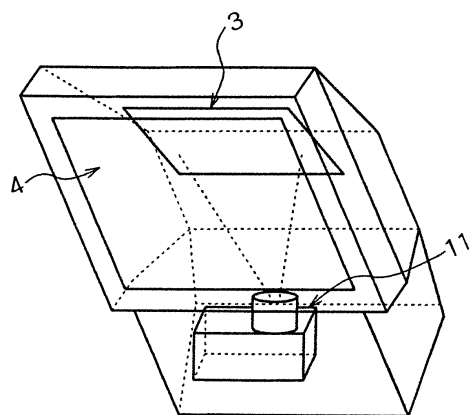


FIG. 4

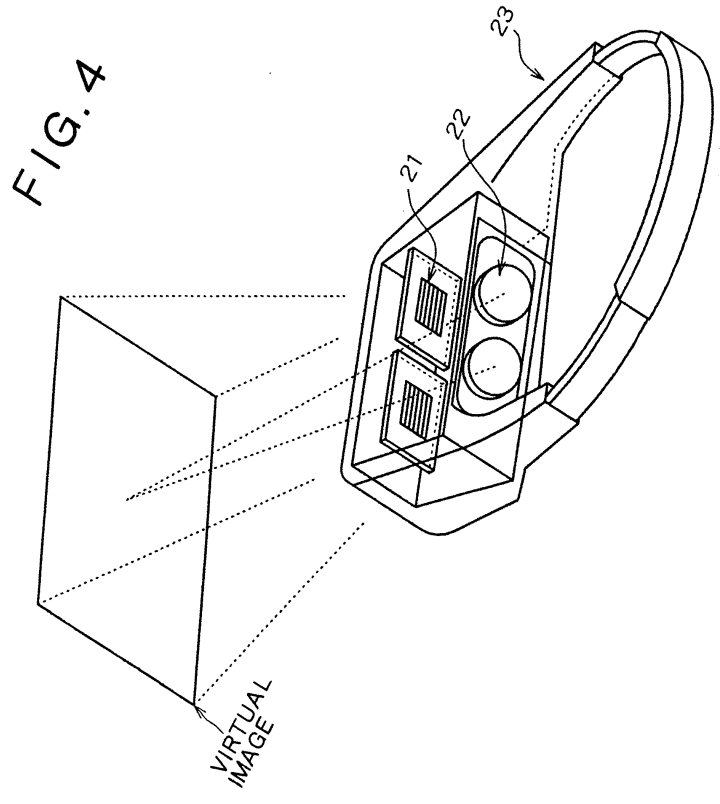


FIG. 5

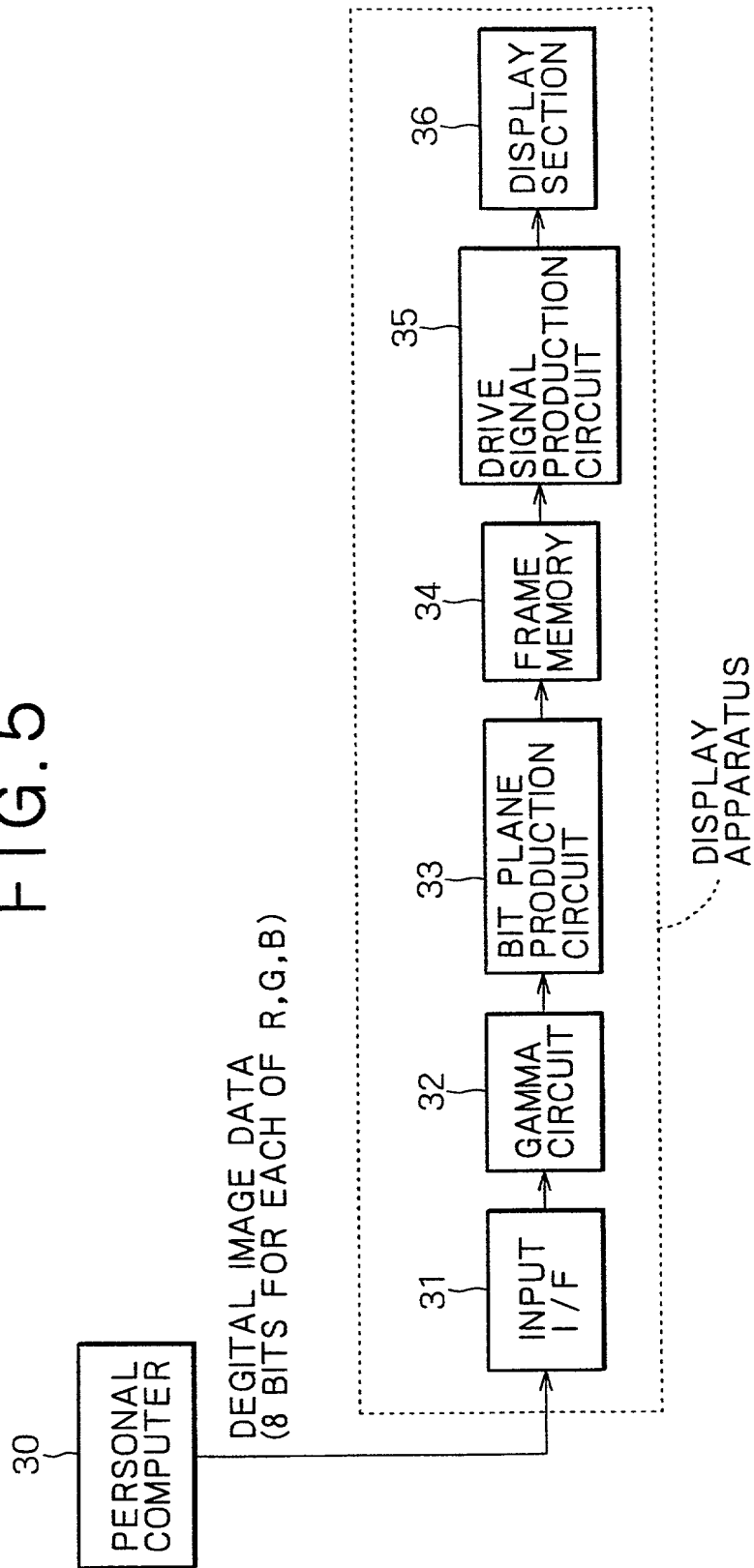


FIG. 6

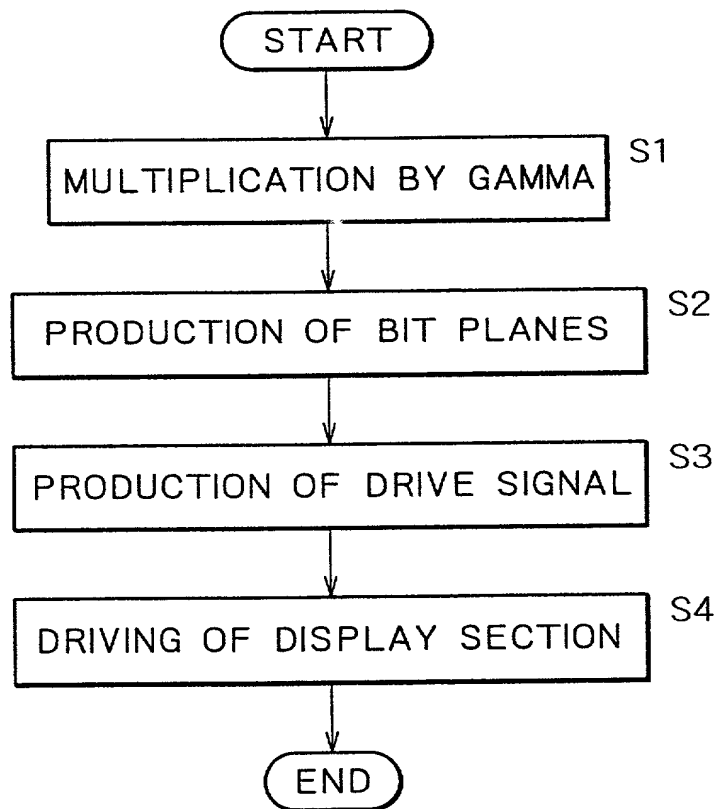


FIG. 7A

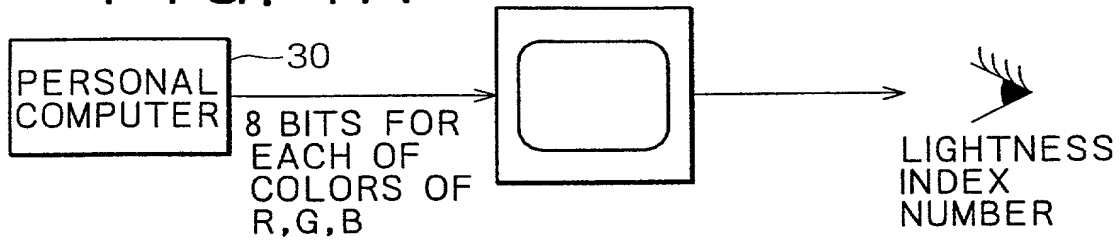


FIG. 7B



FIG. 7C

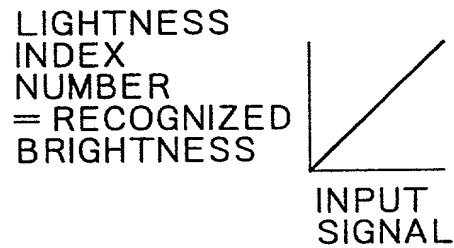


FIG. 7D

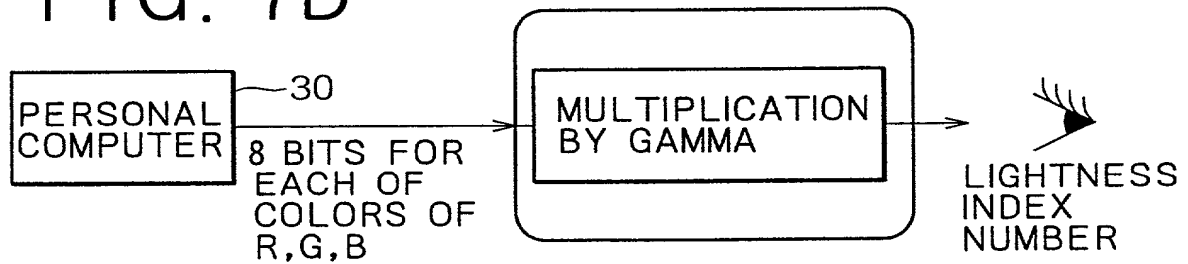


FIG. 7F

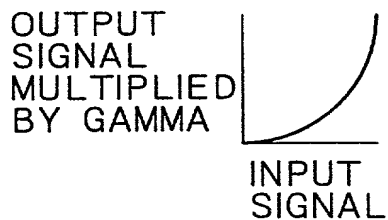


FIG. 7E

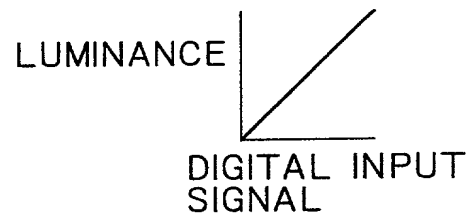


FIG. 7G



FIG. 7H

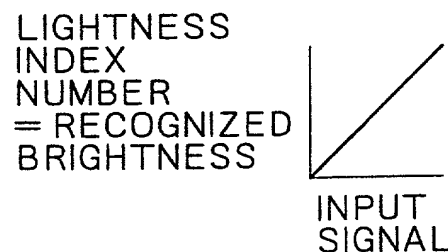


FIG. 8A

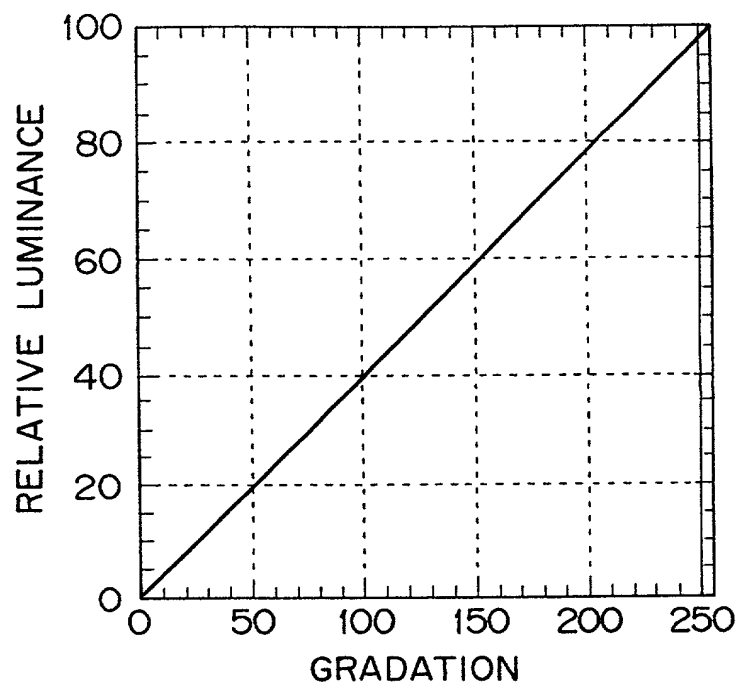


FIG. 8B

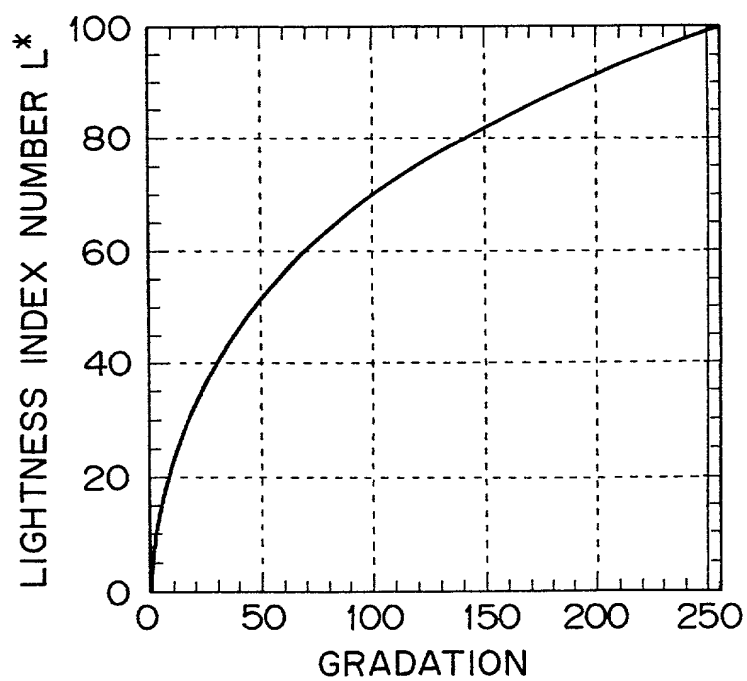


FIG. 9A

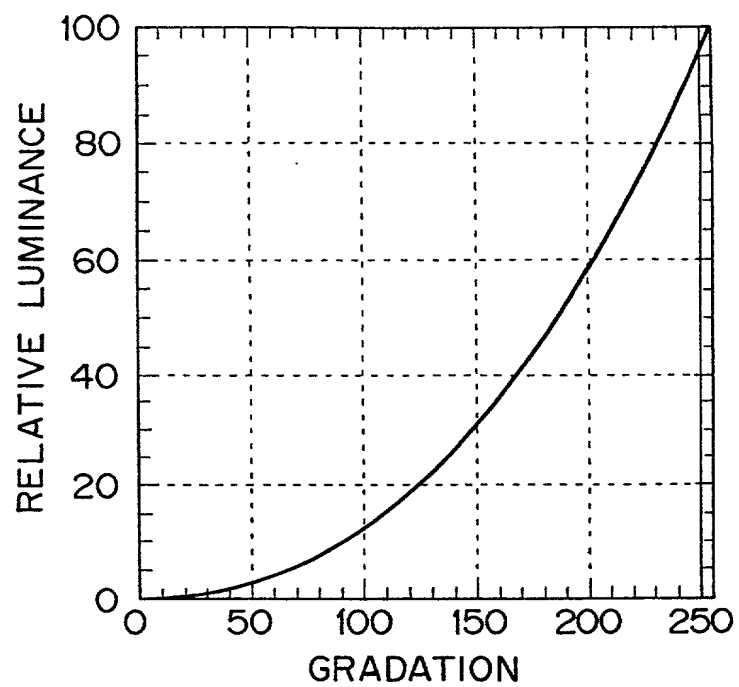


FIG. 9B

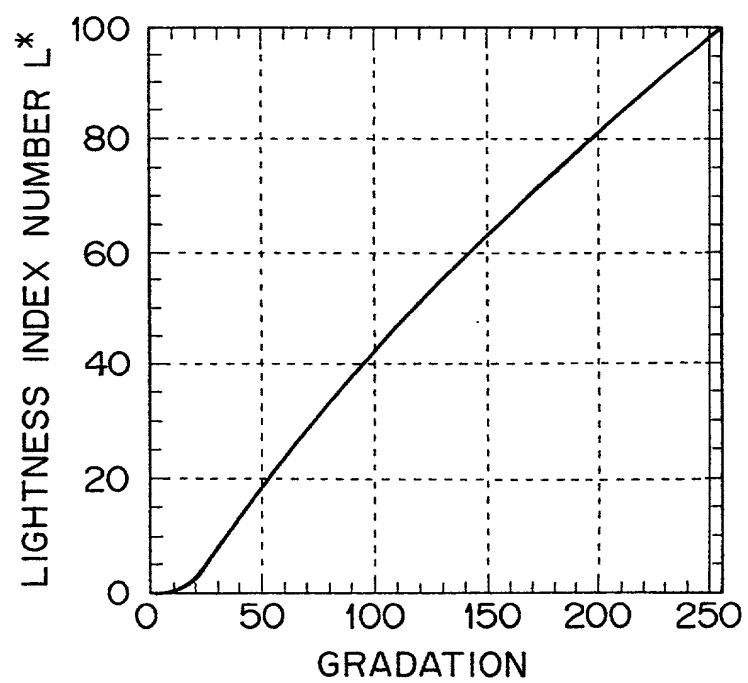


FIG. 10A

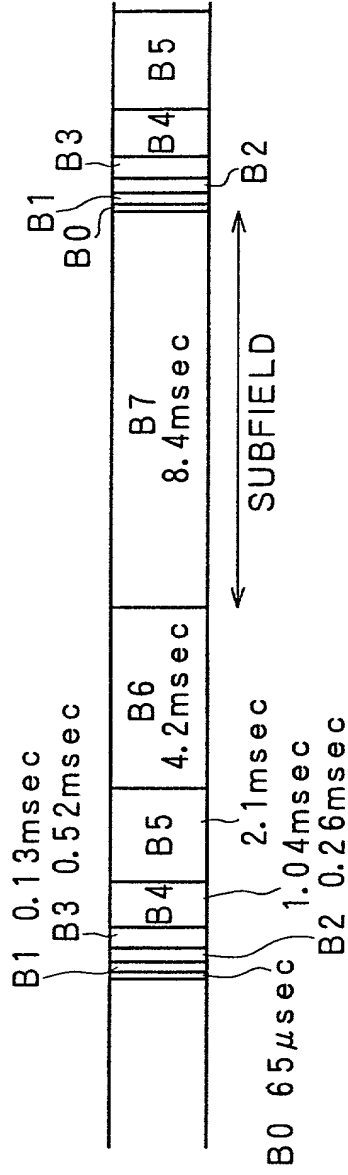


FIG. 10B

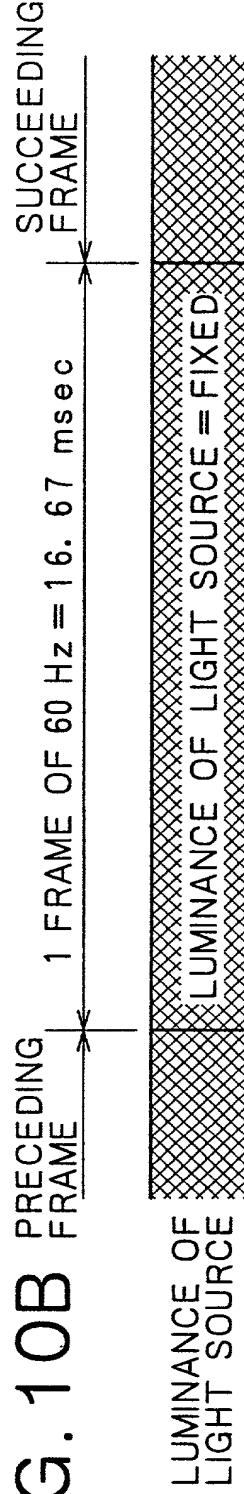
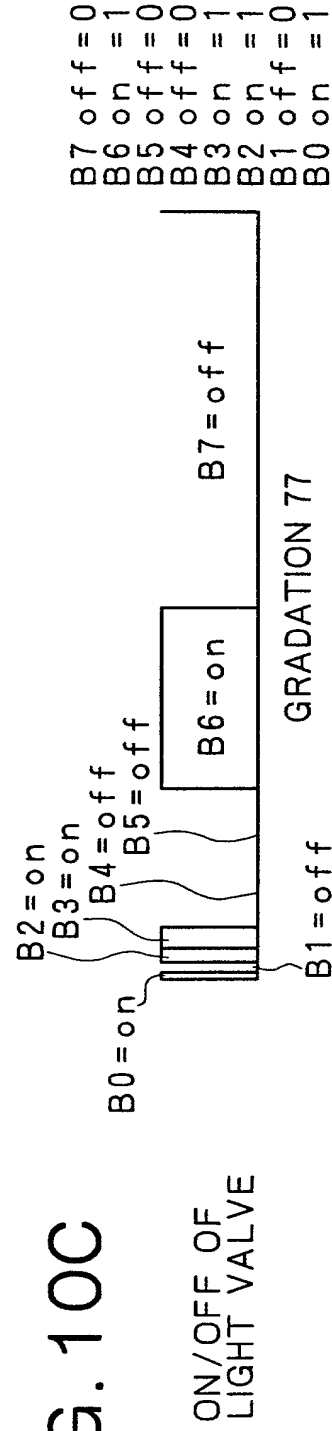
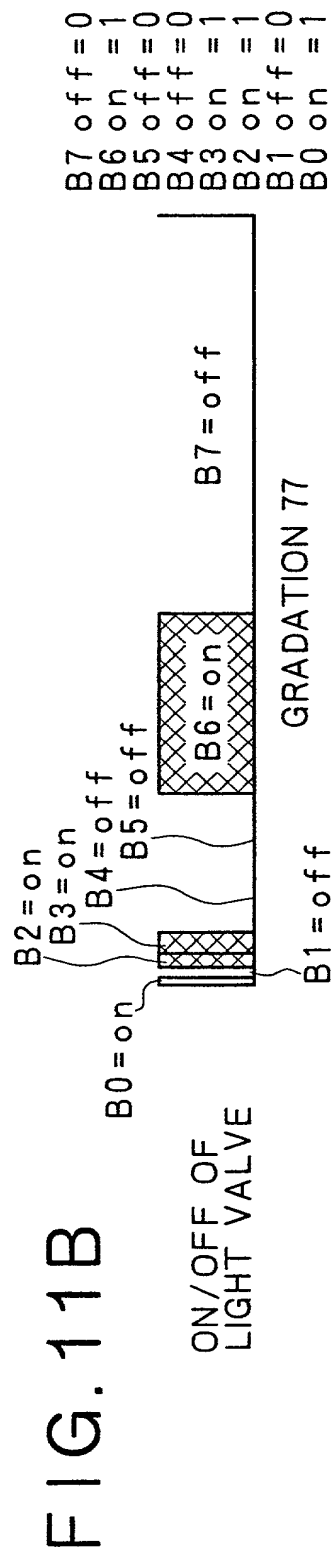
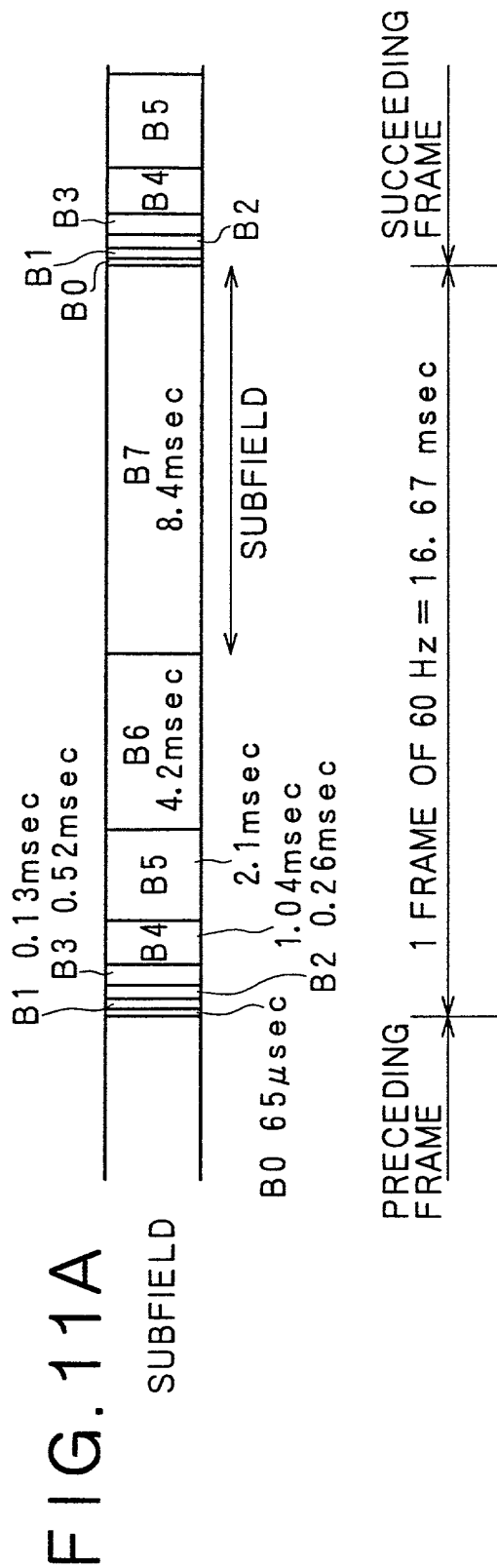


FIG. 10C





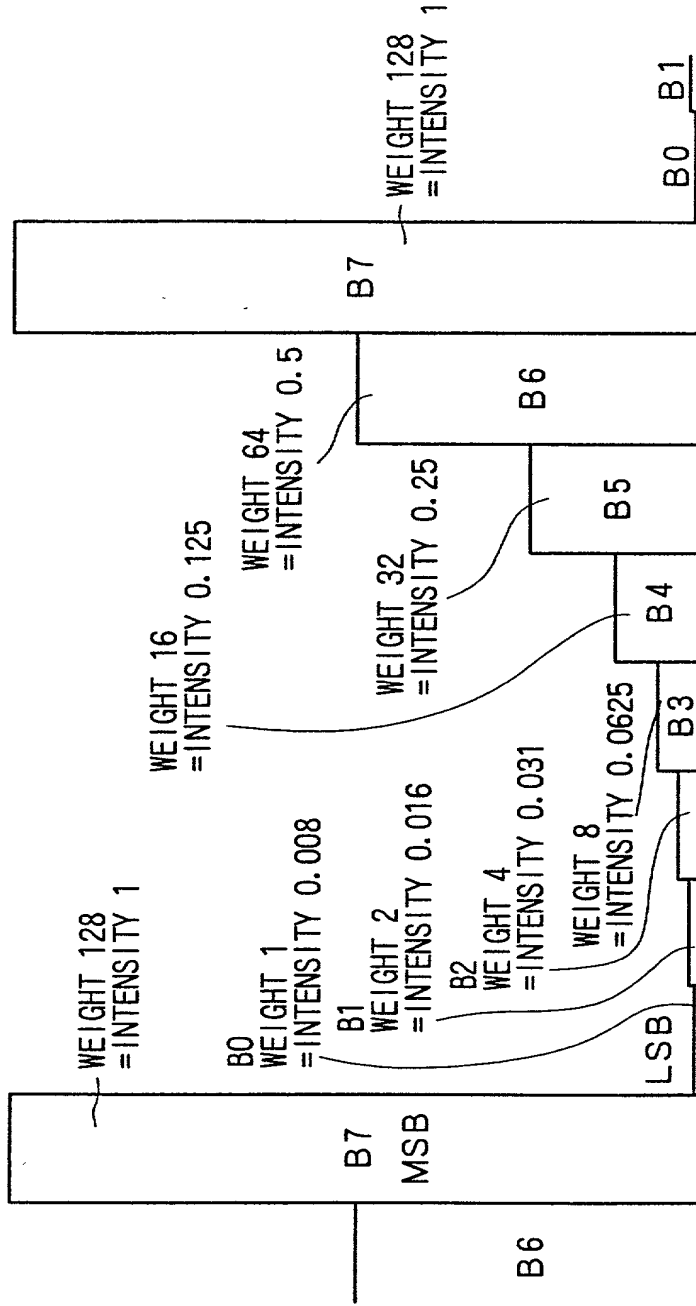


FIG. 12A

LUMINANCE OF
LIGHT SOURCE

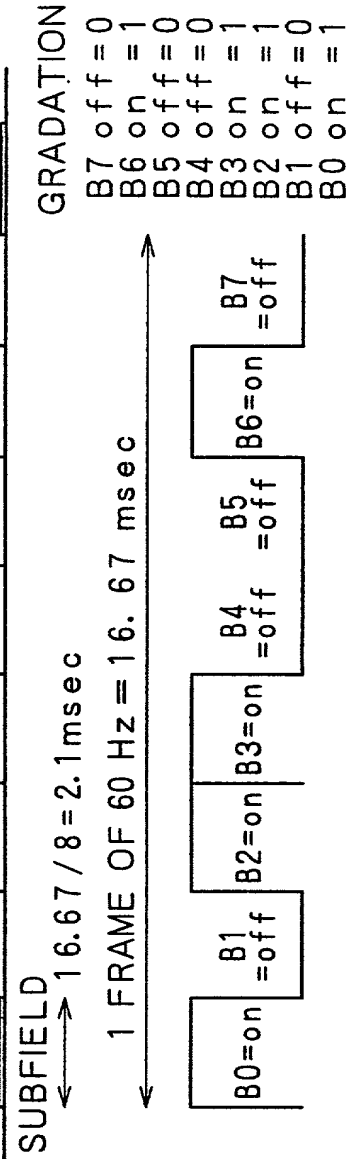


FIG. 12B

ON/OFF OF LIGHT
SOURCE/LIGHT VALVE

FIG. 13A



FIG. 13B

ENLARGED

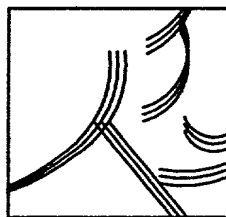
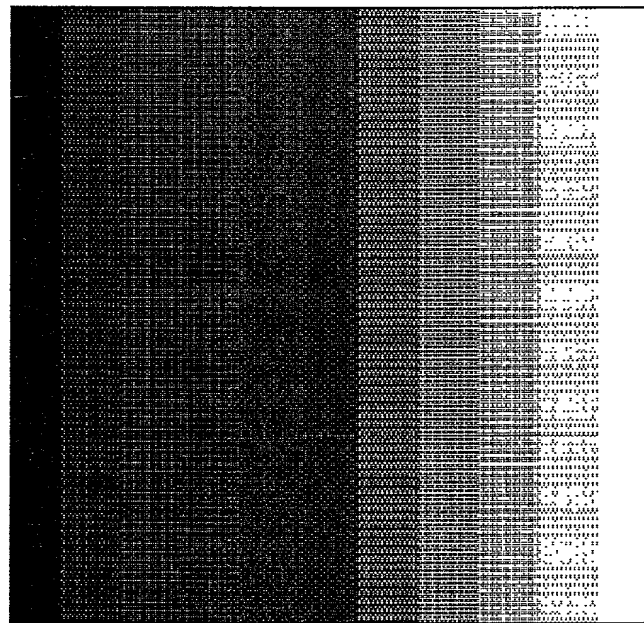


FIG. 14A



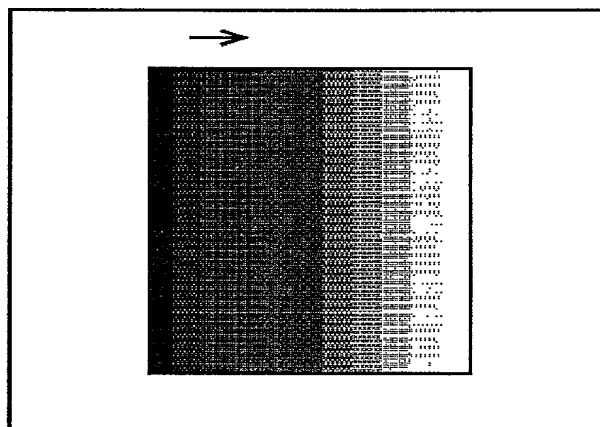
GRADATION 0

GRADATION 255

256 GRADATIONS \times 2 PIXELS/
GRADATION = 512 PIXELS

FIG. 14B

10 PIXELS/FRAME = 600 PIXELS/
1 SECOND
WHEN 1 FRAME = 60 Hz



640/480 DISPLAY HORIZONTALLY 640 PIXELS \rightarrow 1.1 SECONDS
800/600 DISPLAY HORIZONTALLY 800 PIXELS \rightarrow 1.3 SECONDS
1024/768 DISPLAY HORIZONTALLY 1024 PIXELS \rightarrow 1.7 SECONDS
1280/1024 DISPLAY HORIZONTALLY 1280 PIXELS \rightarrow 2.1 SECONDS
1600/1200 DISPLAY HORIZONTALLY 1600 PIXELS \rightarrow 2.6 SECONDS

FIG. 15

(A) (B) (C) (D)

8-BIT LINEAR	$\tau 2.2$	8-BIT INTEGER								
			B0	B1	B2	B3	B4	B5	B6	B7
0	0.0	0	0	0	0	0	0	0	0	0
1	0.0	0	0	0	0	0	0	0	0	0
2	0.0	0	0	0	0	0	0	0	0	0
3	0.0	0	0	0	0	0	0	0	0	0
4	0.0	0	0	0	0	0	0	0	0	0
5	0.0	0	0	0	0	0	0	0	0	0
6	0.1	0	0	0	0	0	0	0	0	0
7	0.1	0	0	0	0	0	0	0	0	0
8	0.1	0	0	0	0	0	0	0	0	0
9	0.2	0	0	0	0	0	0	0	0	0
10	0.2	0	0	0	0	0	0	0	0	0
11	0.3	0	0	0	0	0	0	0	0	0
12	0.3	0	0	0	0	0	0	0	0	0
13	0.4	0	0	0	0	0	0	0	0	0
14	0.4	0	0	0	0	0	0	0	0	0
15	0.5	1	1	0	0	0	0	0	0	0
16	0.6	1	1	0	0	0	0	0	0	0
17	0.7	1	1	0	0	0	0	0	0	0
18	0.7	1	1	0	0	0	0	0	0	0
19	0.8	1	1	0	0	0	0	0	0	0
20	0.9	1	1	0	0	0	0	0	0	0
21	1.0	1	1	0	0	0	0	0	0	0
22	1.2	1	1	0	0	0	0	0	0	0
23	1.3	1	1	0	0	0	0	0	0	0
24	1.4	1	1	0	0	0	0	0	0	0
25	1.5	2	0	1	0	0	0	0	0	0
26	1.7	2	0	1	0	0	0	0	0	0
27	1.8	2	0	1	0	0	0	0	0	0
28	2.0	2	0	1	0	0	0	0	0	0
29	2.1	2	0	1	0	0	0	0	0	0
30	2.3	2	0	1	0	0	0	0	0	0

(OMITTED)

241	225.2	225	1	0	0	0	0	1	1	1
242	227.3	227	1	1	0	0	0	1	1	1
243	229.3	229	1	0	1	0	0	1	1	1
244	231.4	231	1	1	1	0	0	1	1	1
245	233.5	234	0	1	0	1	0	1	1	1
246	235.6	236	0	0	1	1	0	1	1	1
247	237.7	238	0	1	1	1	0	1	1	1
248	239.9	240	0	0	0	0	1	1	1	1
249	242.0	242	0	1	0	0	1	1	1	1
250	244.1	244	0	0	1	0	1	1	1	1
251	246.3	246	0	1	1	0	1	1	1	1
252	248.4	248	0	0	0	1	1	1	1	1
253	250.6	251	1	1	0	1	1	1	1	1
254	252.8	253	1	0	1	1	1	1	1	1
255	255.0	255	1	1	1	1	1	1	1	1

FIG. 19A

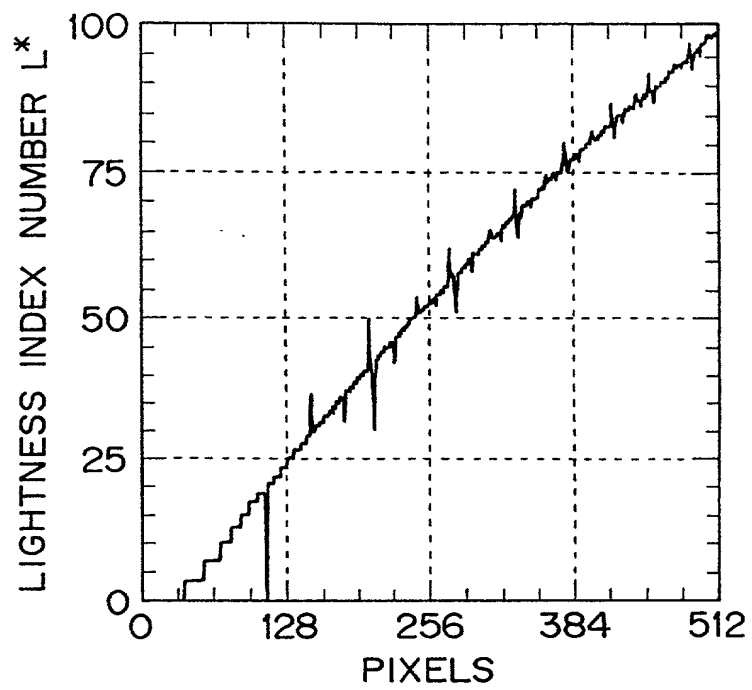


FIG. 19B

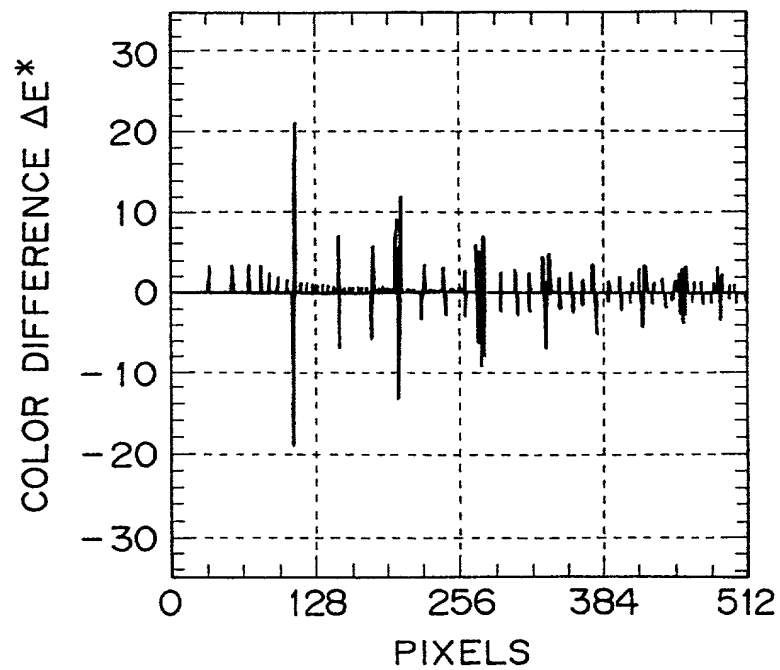


FIG. 20A

BIT PLANE	DIVISION NUMBER		WEIGHT AFTER DIVISION	μsec
	WEIGHT			
MSB	128	8	16	8320
B7	64	4	16	1040
B6	32	2	16	1040
B5	16	1	16	1040
B4	8	1	8	520
B3	4	1	4	260
B2	2	1	2	130
B1	1	1	1	65
Blank				92
LSB				16667
TOTAL			19	

FIG. 20B

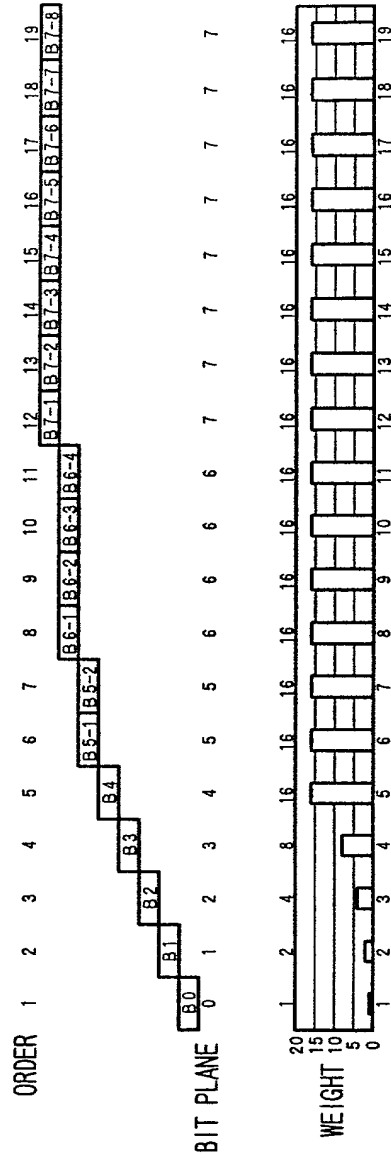


FIG. 21A

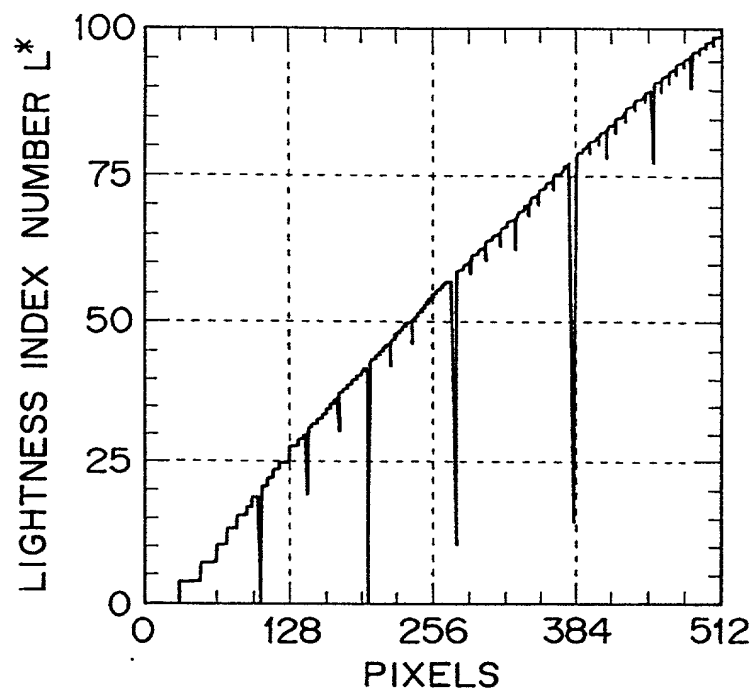


FIG. 21B

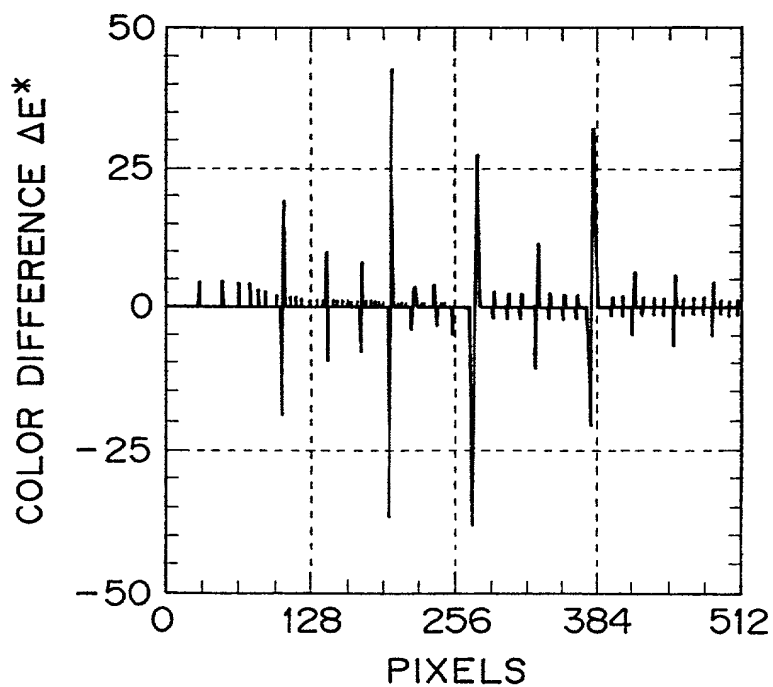


FIG. 22B

[illegible]

FIG. 23A

FIG. 23B

SUBFIELD NUMBER OF COLUMNS OF HORIZONTAL PIXELS	B7-1	B6-1	B7-2	B5-1	B7-3	B6-2	B7-4	B4	B2	B0	B1	B3	B7-5	B6-3	B7-6	B5-2	B7-7	B6-4	B7-8	NORMALIZED LIGHT AMOUNT		LIGHTNESS		COLOR DIFFERENCE
																				LIGHTNESS	×100	Lab	ΔE	
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00	0.00
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00		
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00		
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00		
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00		
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00		
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00		
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00		
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00		
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0000	0.00	0.00		
(OMMITTED)																								
270	0	0	0	1	0	0	0	1	1	0	1	1	0	0	0	1	0	0	0	62.0	0.2431	24.31	56.40	0.00
271	0	0	0	1	0	0	0	1	1	1	1	1	0	0	0	1	0	0	0	63.0	0.2471	24.71	56.79	0.39
272	0	0	0	1	0	0	0	1	1	1	1	1	0	0	0	1	0	0	0	63.0	0.2471	24.71	56.79	0.00
273	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	64.0	0.2510	25.10	57.17	0.38
274	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	64.0	0.2510	25.10	57.17	0.00
(OMMITTED)																								
502	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	244.0	0.9569	95.69	98.31	0.00
503	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	246.0	0.9647	96.47	98.62	0.31
504	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	246.0	0.9647	96.47	98.62	0.00
505	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	248.0	0.9725	97.25	98.93	0.31
506	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	248.0	0.9725	97.25	98.93	0.00
507	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	251.0	0.9843	98.43	99.39	0.46
508	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	251.0	0.9843	98.43	99.39	0.00
509	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	253.0	0.9922	99.22	99.70	0.31
510	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	253.0	0.9922	99.22	99.70	0.00
511	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	255.0	1.0000	100.00	100.00	0.30
512	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	255.0	1.0000	100.00	100.00	0.00

FIG. 25A

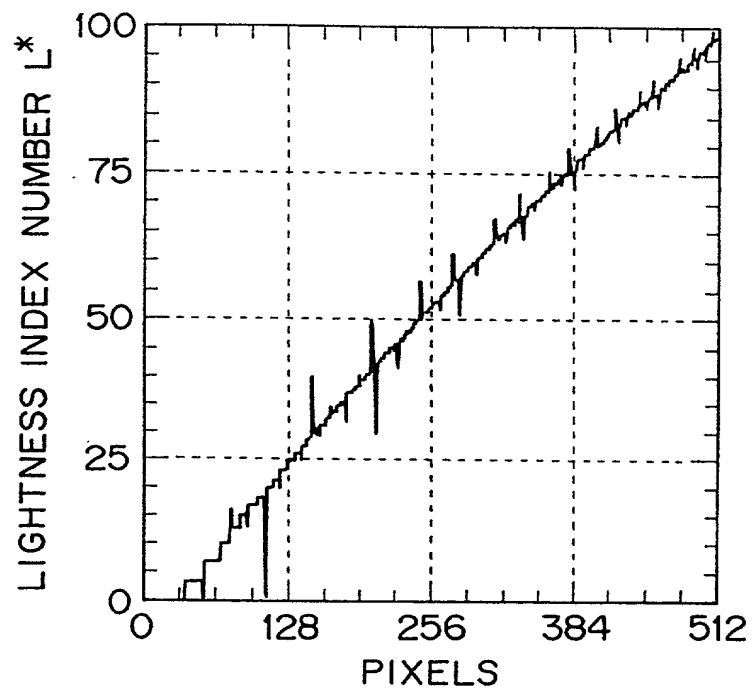


FIG. 25B

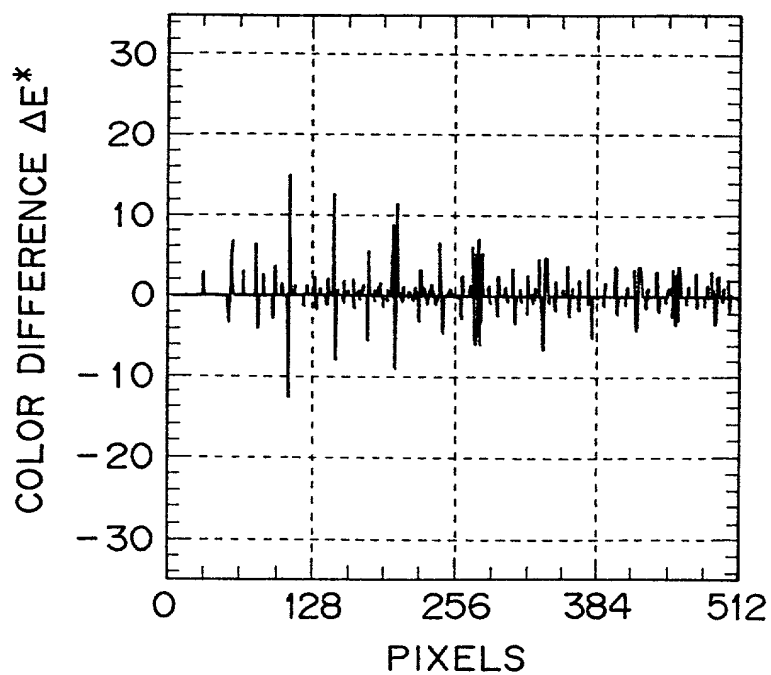


FIG. 27A

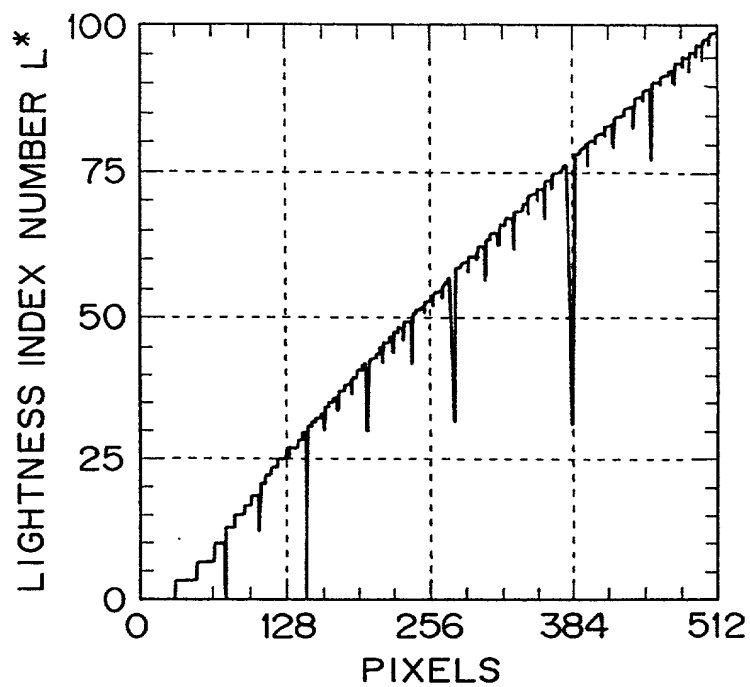


FIG. 27B

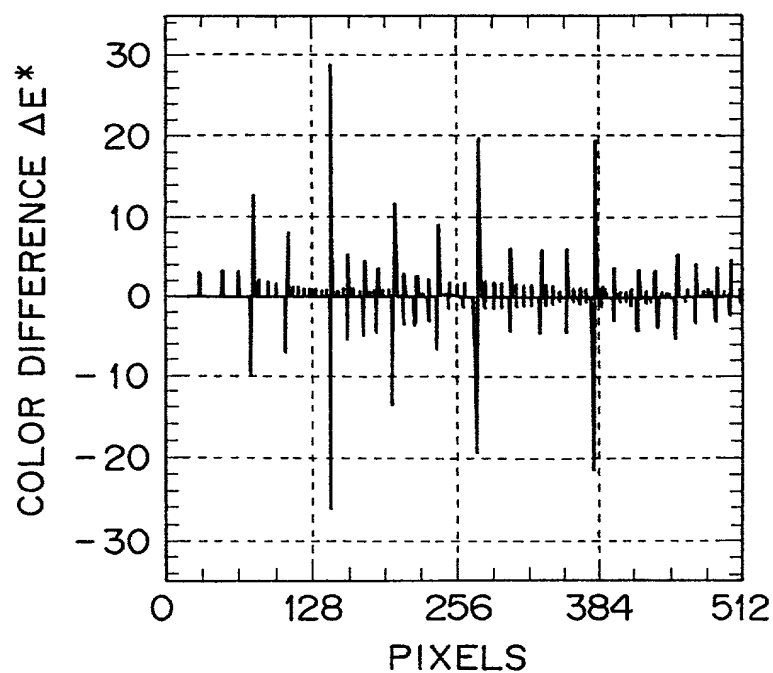


FIG. 28A

BIT PLANE	WEIGHT	DIVISION NUMBER	WEIGHT AFTER DIVISION	μsec
MSB	128	4	32	8320
B7	64	4	16	4160
B6	32	3	10.67	2080
B5	16	3	5.33	1040
B4	8	2	4	520
B3	4	2	2	260
B2	2	1	2	130
B1	1	1	1	65
LSB	Blank			92
TOTAL				16667

FIG. 28B

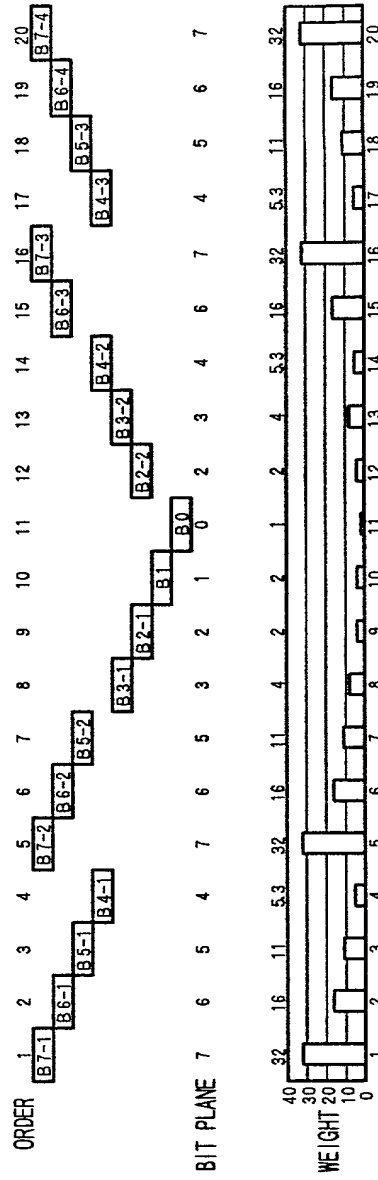


FIG. 29A

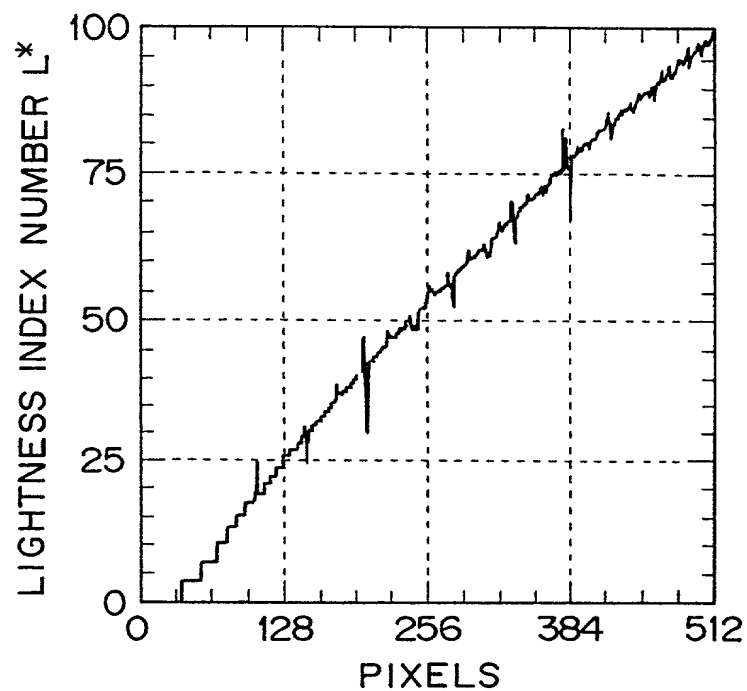


FIG. 29B

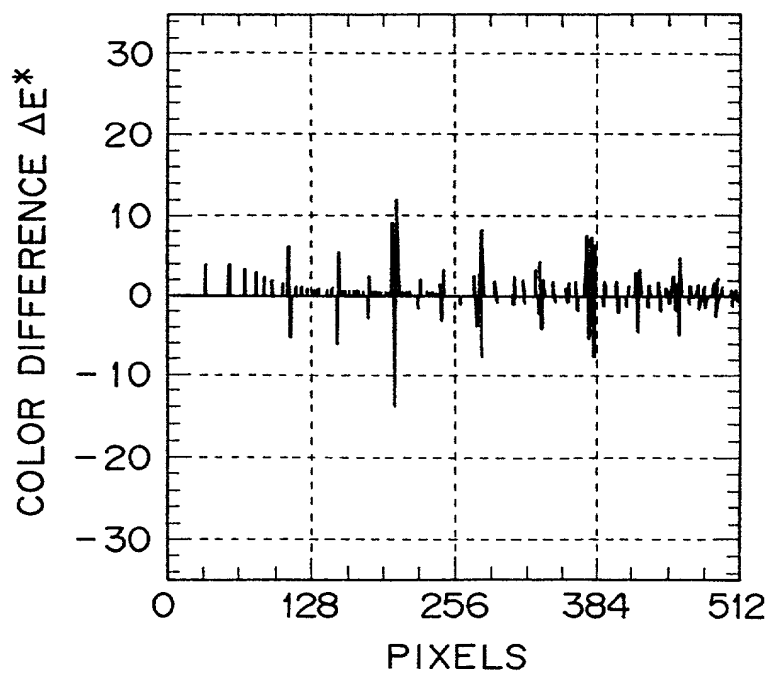


FIG. 30A

BIT PLANE	WEIGHT	DIVISION NUMBER	WEIGHT AFTER DIVISION	μsec
MSB	128	4	32	8320
B7	64	3	21.33	4160
B6	32	3	10.67	2080
B5	16	3	5.33	1040
B4	8	2	4	520
B3	4	2	2	260
B2	2	2	1	130
B1	1	1	1	65
LSB				92
Blank				16667
TOTAL				20

FIG. 30B

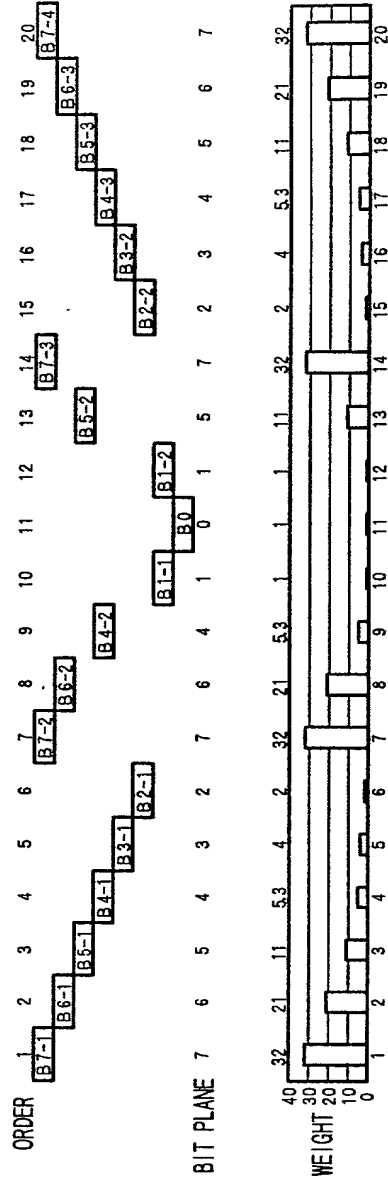


FIG. 31A

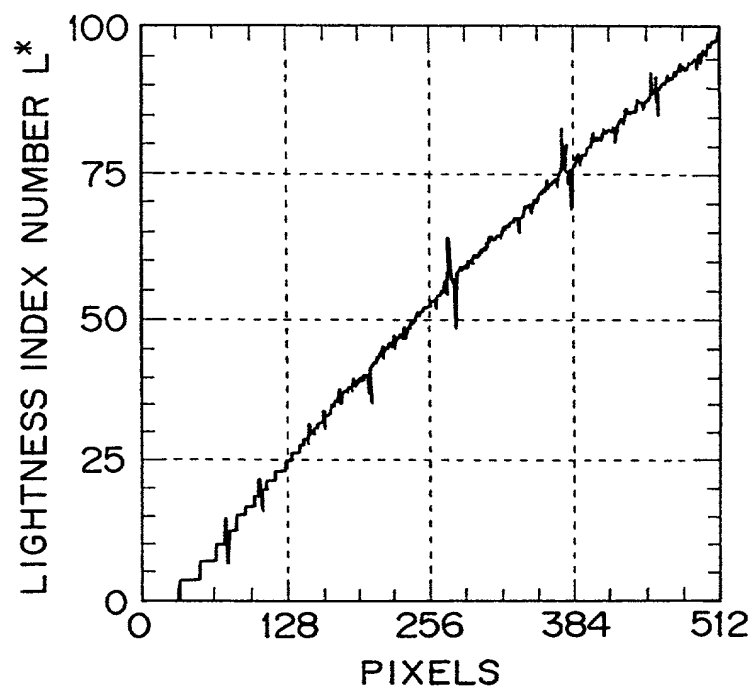


FIG. 31B

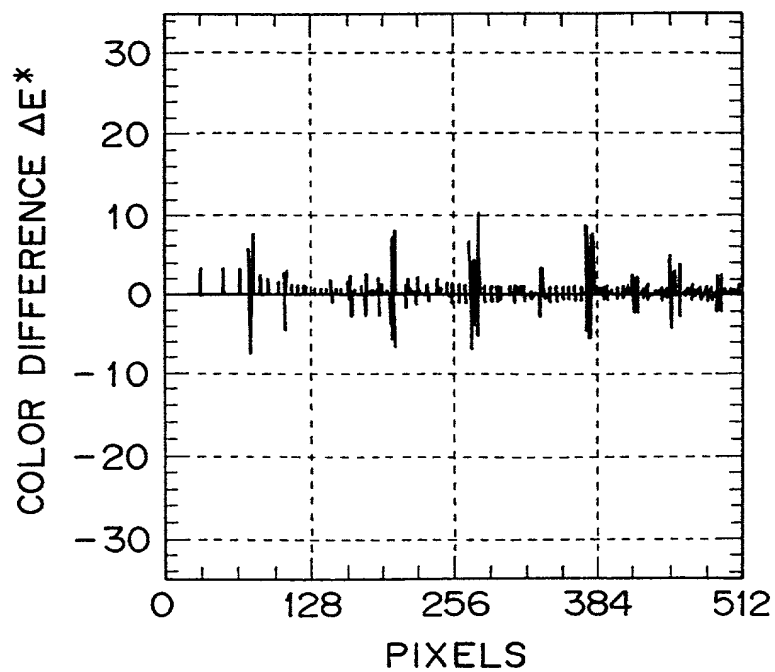


FIG. 32A

BIT PLANE	DIVISION NUMBER	WEIGHT	WEIGHT AFTER DIVISION
MSB	B7	128	32
	B6	64	16
	B5	32	10.67
	B4	16	5.33
	B3	8	4
	B2	4	2
	B1	2	1
LSB	B0	1	1
Blank			
TOTAL		20	

FIG. 32B

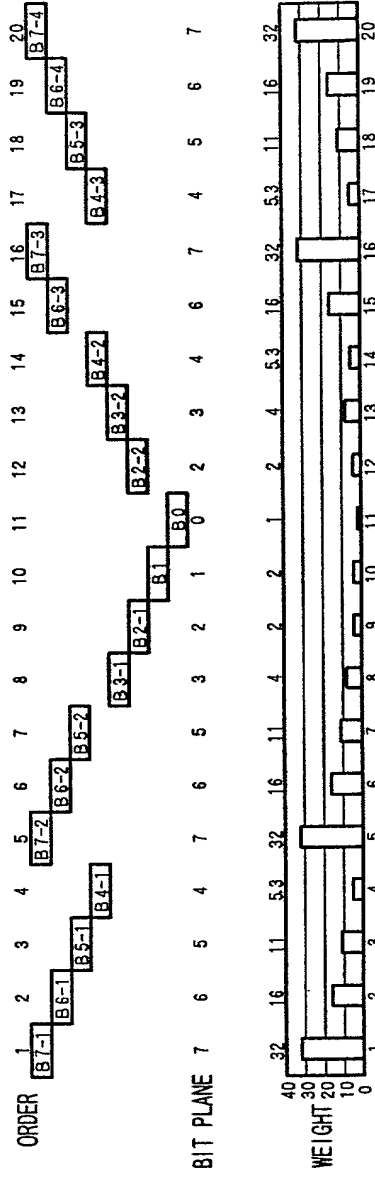


FIG. 33A

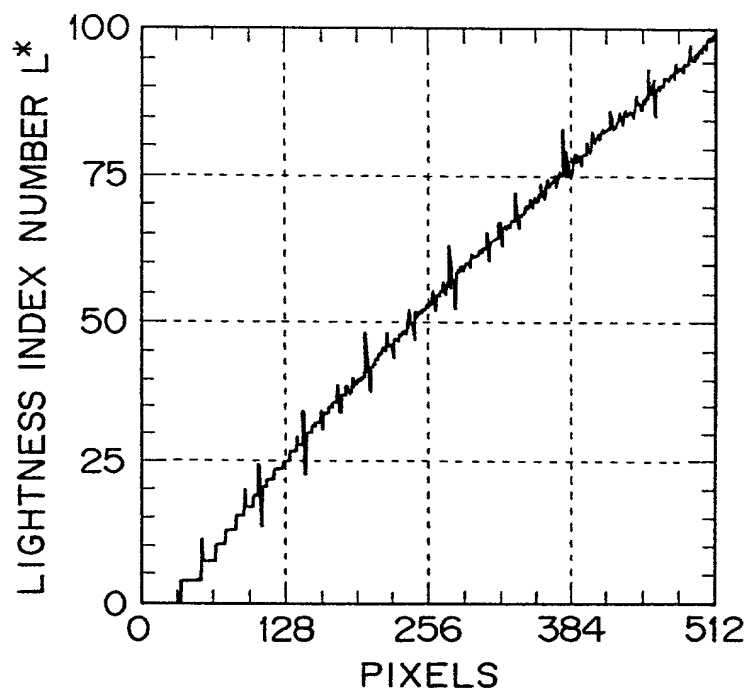


FIG. 33B

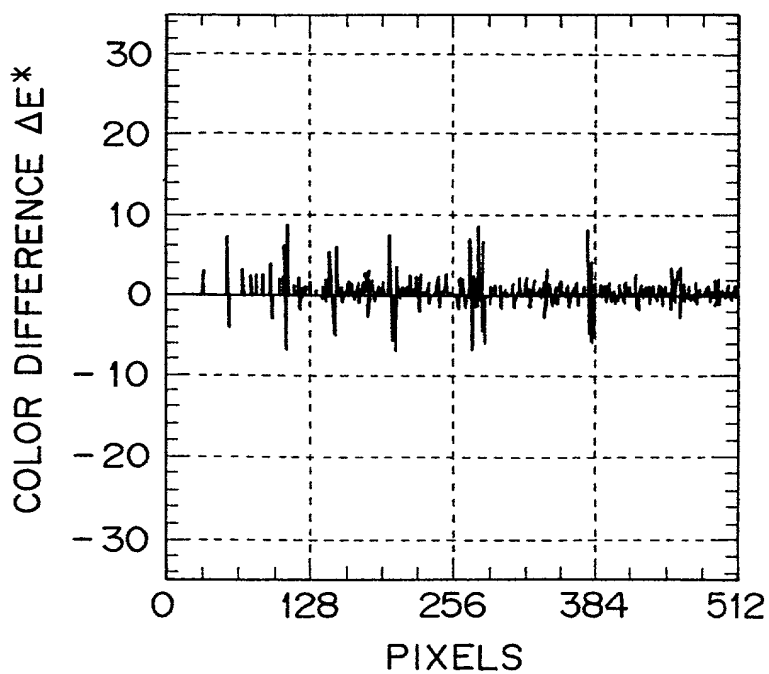


FIG. 34A

BIT PLANE	DIVISION NUMBER		WEIGHT AFTER DIVISION
	MSB	LSB	
B7	128	4	32
B6	64	3	21.33
B5	32	3	10.67
B4	16	3	5.33
B3	8	2	4
B2	4	2	2
B1	2	2	1
B0	1	1	1
Blank			
TOTAL			20

FIG. 34B

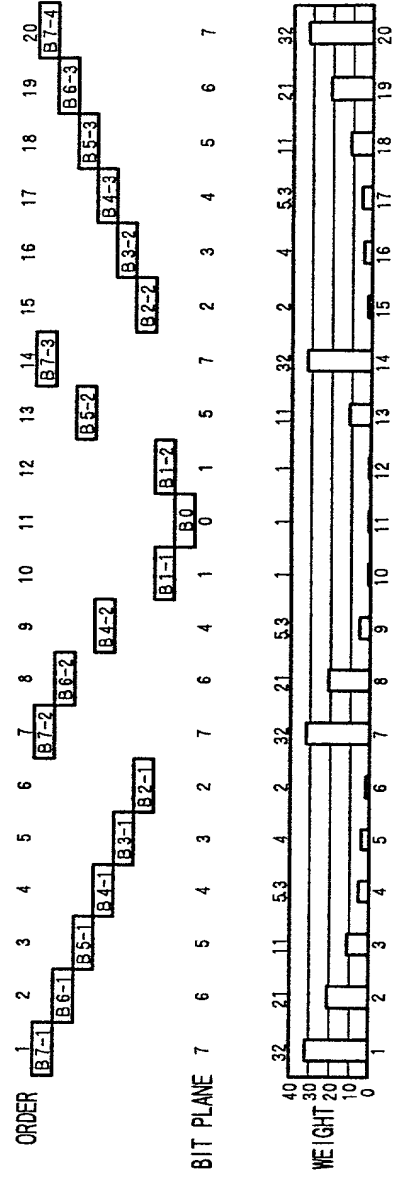


FIG. 35A

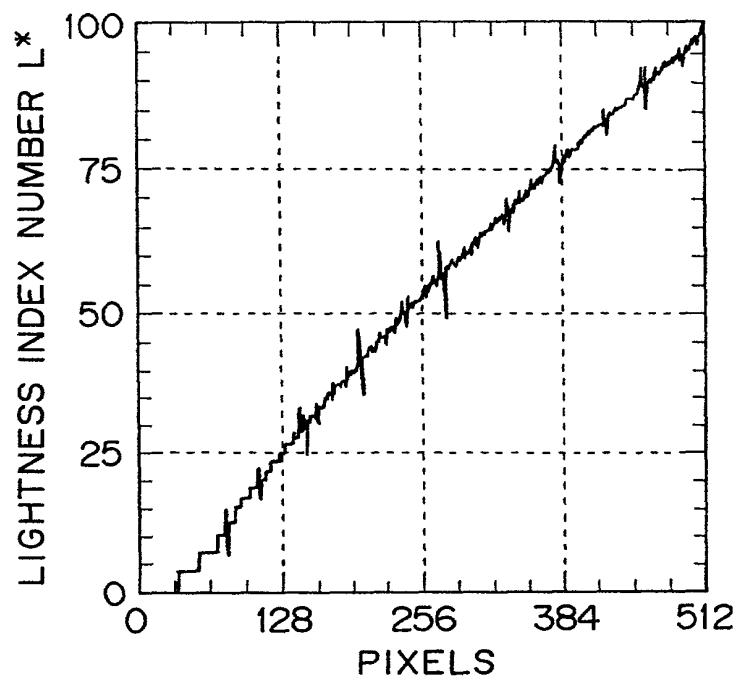


FIG. 35B

